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Electronic learning courses as a means to activate students' independent work in studying physics

Shurygin V., Krasnova L.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© Author(s).Currently, there are special requirements to the system of higher education, focused not only on imparting knowledge to students, but also on the formation of the continuous need for independent self-education, self-creative approach to getting knowledge throughout their active life. In this regard, the role of students' independent work with its potential to revitalize educational and research activities, to form general and professional competencies, self-education and self-promotion increases significantly. Currently, high-quality educational process is impossible without effective information and communication technologies. Particular importance is attached to the development and use of electronic educational courses which provides that all students of the academic group, without exception, will be involved into the process of learning. However, experience shows that students and teachers are not adequately trained to organize independent work effectively, and there are many issues that need to be addressed. The paper considers the problem of organization of students' independent work in the study of physics through the use of remote modules, and describes the experience of the development and application of electronic learning courses (ELC) for the major sections of physics at the Physics and Mathematics Department in Elabuga Institute of Kazan (Volga region) Federal University. The obtained results prove the importance and effectiveness of the developed electronic educational courses in the study of physics in the context of improving the efficiency of students' independent work when competency approach is used for training bachelors that enhances their competitiveness.

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Keywords

Distance learning, E-learning course, Higher education, Learning process, Physics, Self-study